

TI-25320

Patent Amendment

forming a silicon-containing structure on said insulating layer;
forming a conductive structure on said silicon-containing structure; and
oxidizing a portion of said insulating layer and said silicon-containing structure while leaving said conductive structure substantially unoxidized by introducing O₂ and H₂ in the semiconductor processing chamber in an explosive reaction, such that the reaction between said O₂ and H₂ does not increase the pressure in the processing chamber beyond a predetermined safe level.

9 (Five Times Amended). A method of oxidizing, in a semiconductor processing chamber, a first feature while leaving a second feature substantially unoxidized, said method comprised of subjecting said first and second features to O₂ and H₂ in an explosive reaction in said semiconductor processing chamber, such that the reaction between said O₂ and H₂ does not increase the pressure in the processing chamber beyond a predetermined safe level.

16 (Five Times Amended). A method of fabricating, in a semiconductor processing chamber, a capacitor having a dielectric between a bottom electrode and a top electrode and situated over a semiconductor substrate, said method comprising the steps of:

providing said bottom electrode over said semiconductor substrate;
providing a dielectric material over said bottom electrode; and
subjecting said bottom electrode and said dielectric material to an explosive reaction between O₂ and H₂ in semiconductor processing chamber, wherein said dielectric material is oxidized and said bottom electrode remains substantially unoxidized, such that the reaction between said O₂ and H₂ does not increase the pressure in the processing chamber beyond a predetermined safe level.

26 (Four Times Amended). A method of fabricating an electrical device formed in a semiconductor substrate, said method comprising:

forming an insulating layer over said semiconductor substrate;

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Cont'd

forming a silicon-containing structure on said insulating layer;
forming a conductive structure on said silicon-containing structure; and
oxidizing a portion of said insulating layer and said silicon-containing structure while leaving said conductive structure substantially unoxidized by introducing an oxygen-containing gas selected from the group consisting of O₂, N₂O, NO or CO₂ and a separate hydrogen-containing gas in a semiconductor processing chamber housing said insulating layer, said silicon-containing structure and said conductive structure, such that an explosive reaction between said the hydrogen-containing gas and the oxygen containing gas does not increase the pressure in the processing chamber beyond a predetermined safe level.
